

Appl. No. : 10/658,307
Filed : September 9, 2003

REMARKS

Amendments to the Claims

Applicants respectfully request entry of the Amendments to the Claims set forth above. Claims 2-12 and 14-24 have been cancelled without prejudice. Claim 1 has been amended by incorporating the structure (iii) of Claim 2. New Claims 25 and 26 have been added. Support for the amendments to Claim 1 and for new Claims 25 and 26 is found in, e.g., original Claims 1 and 2 and in the specification as originally filed at page 6. Claims 1, 13, 25 and 26 are now pending in this application. The amendments to the claims do not constitute the addition of new matter.

Amendments to the Specification

Applicants respectfully request entry of the Amendments to the Specification set forth above. The specification has been amended to correct various minor clerical errors and misspellings. The amendments to the specification do not constitute the addition of new matter.

Election/Restriction

With this amendment, claims corresponding to Group II (Claims 3-12 and 15-24) have been cancelled.

Oath/Declaration

The Office Action indicates that a new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. In response, Applicants respectfully submit a new Declaration herewith.

Specification

The Office Action indicates that the specification is objected to because of the following informality: The name 'R. TWieg' should be 'R. Twieg.' The specification has been amended as set forth above to correct this informality, thus obviating the objection. It is respectfully requested that the objection be withdrawn.

Claim Objection

The Office objects to the claims on the basis that a claim that depends from a dependent claim should not be separated by any claim that does not also depend from said dependent claim. However, Claims 2-12 and 14-24 have now been canceled. Thus, Applicants respectfully submit that this objection is moot, and respectfully request that it be withdrawn.

Double Patenting

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Claims 1 and 2 have been rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 9 of U.S. Patent No. 6,534,198 (Ueno). However, the assignee of U.S. Patent No. 6,534,198 (Ueno), as indicated on the face of that patent, appears to be Canon Kabushiki Kaisha which is different from the assignee of this application. "Before consideration can be given to the issue of double patenting, there must be some common relationship of inventorship and/or ownership of two or more patents or applications." M.P.E.P. § 804. Accordingly, Applicants respectfully submit that this rejection is improper, and respectfully request that it be withdrawn.

Rejection of Claims 1, 2, 13 and 14 under 35 U.S.C. § 102(e)

Claims 1, 2, 13 and 14 have been rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,610,809 (Yamamoto '809). Further, Claims 1, 2, 13 and 14 have been rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,653,421 (Yamamoto '421). Applicants respectfully submit that the reference in the Office Action to U.S. Patent No. 6,953,421 contains a typographical error, and that the correct reference is to U.S. Patent No. 6,653,421.

The Office Action states that the applied references have a common inventor and assignee with the instant application, and that this rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Applicants respectfully submit herewith a Declaration under 37 C.F.R. § 1.132. The Declaration establishes that the invention disclosed in column 17, lines 4-8 of Yamamoto '809 and column 16, lines 31-36 of Yamamoto '421, i.e., "In principle, essentially any polymer backbone, including, but not limited to, polyurethane, epoxy polymers, polystyrene, polyether, polyester, polyamide, polyimide, polysiloxane, and polyacrylate could be used, with the appropriate side chains attached, to make the polymer matrices of the invention," was derived from an inventor (Michiharu Yamamoto) of this application. Accordingly, Applicants respectfully submit that the disclosed invention is not an invention "by another" as described in 35 U.S.C. 102(e) and thus the cited references are not prior art. Therefore, Applicants respectfully request that these rejections be withdrawn.

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Rejection of Claims 1 and 2 under 35 U.S.C. § 102(e)

Claims 1 and 2 are rejected under 35 U.S.C. 102(e) as being anticipated by US 6,534,198 (Ueno). Claim 2 has been canceled.

Applicants respectfully submit that Ueno fails to disclose the polymer represented by the formula (i) as recited in Claim 1. The claimed polymer contains oxygen atoms between silicon atoms, e.g., Si-O-Si groups. In contrast, the polymers disclosed by Ueno contain Si-Si bonds, without an oxygen atom between the silicon atoms. See, e.g., Ueno at column 3.

In addition, Ueno fails to provide motivation to modify the disclosed polymers to provide polymers represented by the formula (i) as claimed. Therefore, because Ueno fails to teach or suggest every element of the claimed invention, Applicants respectfully request withdrawal of this rejection.

Rejection under 35 U.S.C. § 103(a)

Claims 1, 2, 13 and 14 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Woong Sang Jahng et al., Synthesis and Characterization of Hole-transport Materials in Polysiloxane, Mat. Cryst. Liq., Vol 377 pp. 329-33S2 (Jahng) in view of Japanese Patent 10-333195 (Hisaya), U.S. Patent No. 2,774,697 (Koblitz) and applicant's purported admission.

The Examiner recognizes that Jahng does not disclose the elected pendant group, but has taken the position that it would have been obvious to a person of ordinary skill in the art to include the pendant group of Hisaya on the polysiloxane backbone of Jahng. Motivation, according to the Examiner, would have been to improve the speed of the photorefractive response.

Applicants respectfully disagree because those skilled in the art understand that the T_g's (glass transition temperatures) of polysiloxanes are often undesirably low, leading to various problems. Applicants respectfully direct the attention of the Examiner to the paper by D. Wright et al., "Photorefractive Properties of Poly(siloxane)-triarylamine-Based Composites for High Speed Applications," J. Phys. Chem. B 2003, 107, 4732-4737 ("Wright"), reference no. 3 in the IDS submitted January 4, 2005. Wright notes that the polysiloxane 3 depicted in Scheme 1 "was found to have a T_g of 25°C, **which is actually too low to be used** with the concentrations of chromophore normally employed in photorefractive polymer composites. . . . This low T_g leads to fast phase separation of the chromophores in the polymer host and dielectric breakdown at small electric field strengths," see Wright at p. 4733, first column, second paragraph (emphasis

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added). Thus, Applicants respectfully submit that Wright *teaches away* from the combining Jahng, Hisaya, Koblitz and applicant's purported admission in the manner indicated by the Examiner. "References cannot be combined where reference teaches away from their combination." M.P.E.P. § 2145(X)(D)(2).

In view of Applicants' amendments and arguments, reconsideration and withdrawal of this ground of rejection is respectfully requested.

New Claims 25 and 26

New Claim 25 recites structure (iv) of original Claim 2. Claim 26 is dependent on Claim 25. Applicants respectfully submit that none of the references cited by the Examiner discloses or suggests the combination of limitations recited in Claims 25 and 26, including structure (iv). Therefore, Applicants respectfully submit that new Claims 25 and 26 are both novel and unobvious, and respectfully request that they be allowed.

CONCLUSION

In view of foregoing Remarks and Applicants' Amendments to the Specification and Claims, it is respectfully submitted that the present application is in condition for allowance. Should the Examiner have any remaining concerns which might prevent the prompt allowance of the application, the Examiner is respectfully invited to contact the undersigned at the telephone number appearing below.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

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